

REMARKS

Claims 1-12 are pending in the present Application. Claims 1-3 and 5-7 have been canceled, Claims 4, 8, 9, and 12 have been amended, and Claims 13-27 have been added, leaving Claims 4 and 8-27 for consideration upon entry of the present Amendment.

Support for the amendment to Claim 9 can at least be found in Figure 3 and the corresponding description in the specification.

Support for new Claims 13 and 14 can be found in Claims 1 and 5 respectively, and in Figs. 3 and 5 and the corresponding description in the specification.

Support for new Claims 15-18 can at least be found in the claims as originally filed and in the figures.

Support for new Claims 19-27 can at least be found in the specification at page 26.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Specification

Applicant has substituted a new abstract of the disclosure that is a single paragraph and has less than 150 words. Support for this new abstract can at least be found in Claim 9.

Applicant has provided a new title as requested by the Examiner.

Accordingly, Applicant respectfully requests that the objections to the specification be withdrawn.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1 and 4-5 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Yamada (EP 1032045 A2).

This rejection is moot, as Claims 1 and 5 have been canceled without prejudice and the dependency of Claim 4 has been amended to depend from new Claim 13. For completeness of this response, Claim 13 is discussed below.

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Claim Rejections Under 35 U.S.C. § 102(e)

Claims 1-8 stand rejected under 35 U.S.C. § 102(e), as allegedly being anticipated by Yamada (U.S. Patent No. 6,768,257).

This rejection is moot, as Claims 1-3 and 5-7 have been canceled without prejudice and the dependency of Claims 4 and 8 have been amended to respectively depend from new Claims 13 and 14. For completeness of this response, Claims 13 and 14 are discussed below.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 9 and 11-12 are rejected as allegedly being unpatentable over Yamada et al. (U.S. Patent No. 6,768,257) in view of Yamagata et al. (U.S. Patent No. 6,720,198).

Claim 10 is rejected as allegedly being unpatentable over Yamada et al. (U.S. Patent No. 6,768,257) in view of Yamagata et al. (U.S. Patent No. 6,720,198) with further consideration of Ogura et al. (US 2002/007063).

Applicant's amended Claim 9 is directed to an organic electroluminescence panel comprising, *inter alia*, the following element: "an edge covering insulating layer for covering peripheral end portions of the lower individual electrode and a region from the peripheral end portions to an end portion of an adjacent lower individual electrode." Applicant respectfully submits that the above cited references, either alone or in combination, fail to teach or suggest this claimed structure.

In making the rejection, the Examiner states that

Yamada is silent regarding that the hole injection layer is formed covering the lower individual electrode, the edge covering insulating layer, and the mask supporting layer. In the same field of endeavor, Yamagata teaches that the hole injection layer is formed covering the lower individual electrode, the edge covering insulating layer, and the mask supporting insulating layer [cite omitted] in order to ensure proper generation of holes. Therefore, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the structure of the hole injection layer, as disclosed by Yamagata, in the organic electroluminescence pane of Yamada. Motivation to combine would be to ensure proper generation of holes.

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(O.A., pages 9-10).

However, Yamagata fails to disclose formation of an organic compound layer using a mask. In fact, in Yamagata, as is clear from at least Figs 1E, 6B, 8B, the organic compound layers (110, 948, 816) are formed common to all pixels and mask is not necessary. Yamagata fails to suggest the necessity of using a mask. In other words, Yamagata does not recognize the problem when the organic emissive layer is patterned and formed in a desired shape using a mask, and consequently fails to disclose the mask supporting insulating layer and to recognize the necessity for the mask supporting layer. In addition, although Yamagata discloses that a multilayer structure including a hole injection layer, a hole transport layer, a hole blocking layer, an electron transport layer, an electron injection layer, and a buffer layer in addition to the emissive layer as the organic compound layer may be employed (e.g., Col. 5, lines 21-29), all of the organic compound layers are integrally formed common to a plurality of pixels, as described above. Moreover, Yamagata does not have a description or suggestion that the hole injection layer is common to a plurality of pixels nor that the emissive layer is formed in an individual pattern for each pixel, and thus Yamagata does not consider these structures.

As is clear from Figs. 5A-6, in Yamada ('257), the organic layers (11R, 11G, and 11B) are formed in a pattern independent for each pixel and all of the plurality of layers forming the organic layers is formed in a same pattern. In other words, Yamada ('257) fails to even suggest that the hole injection layer is common to a plurality of pixels or that the organic emissive layer has an individual pattern for each pixel, as described in Applicant's claimed invention. That is, Yamada ('257), fails to disclose and clearly does not consider a hole injection layer formed covering the lower individuals electrode, edge covering insulating layer, and mask supporting insulating layer.

The Examiner States that a rib 14 of Yamada ('257) corresponds to the mask supporting insulating layer of Applicant's claimed invention. As shown in Fig. 4 and described in Col. 6, lines 14-34 of Yamada ('257), the rib 14 is formed of an insulating material layer 14a formed on the insulating 13 and a conductive material layer 14b layered on

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14a. The conductive material layer 14b is a characteristic of Yamada ('257) and functions as an "auxiliary electrode" of an upper common electrode 12 layered on the rib 14. This structure of having a rib 14 having the conductive material layer 14 clearly suggests that Yamada ('257) does not consider formation of the hole injection layer covering the lower individual electrode, edge covering insulating layer, and mask supporting insulating layer, because if the rib 14 is covered by the hole injection layer, the hole injection layer would be formed between the conductive material layer 14b of the rib 14 and the upper common electrode 12, and, consequently, inability of the conductive material layer 14b to function as the auxiliary electrode.

If it is assumed, on the other hand, that the electrical connection is not deficient, because the hole injection layer is formed also on the lower individual electrode as is described in Claim 9, the hole injection layer is connected to both the lower individual electrode and the upper electrode, which results in short-circuiting between the upper and lower electrodes. As is clear from Figs. 4, 9, etc., the conductive material layer 14b of the rib 14 must be selectively formed at least in the formation region of the rib 14. Therefore, if the hole injection layer is formed before the conductive material layer 14b of the rib 14, the conductive material layer 14b formed on the injection layer must be patterned and removed after the hole injection layer is formed. A person with ordinary skill in the art would never expose the surface of the hole injection layer to an etching environment such as an etching solution after the hole injection layer is formed.

As is clear from the above discussion, a person with ordinary skill in the art would never consider a structure covering above the rib 14 with the hole injection layer in Yamada ('257). As described, in Yamagata, there is no mask supporting insulating layer and Yamagata does not consider a hole injection layer formed in an individual pattern for each pixel. Therefore, a person with ordinary skill in the art would not be motivated to combine Yamada ('257) and Yamagata, and even if these references are combined, the invention as disclosed in Claim 9 cannot be obtained. For at least these reasons, independent Claim 9 is not obvious and is therefore allowable. Moreover, as dependent claims from an

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allowable independent claim, Claims 11-12 are, by definition, also allowable.

With regards to Claim 10, the Examiner rejects claim 10 further citing Ogura. Ogura fails to cure the deficiencies of Yamada ('257) and Yamagata, as such Claim 10 is allowable for at least the reason that it depends from allowable independent Claim 9. Further, Claim 10 does not simply specify thicknesses of the hole injection layer and the organic emissive layer, but also specifies a thickness of the hole injection layer covering the mask supporting insulating layer and a thickness of the organic emissive layer having an individual pattern for each pixel. Even when Ogura's disclosure is applied to Yamada and Yamagata, the claimed invention of Claim 10 cannot be made.

Remarks for New Independent Claims 13 and 14

These claims also clearly describe the edge covering insulating layer and the mask supporting insulating layer formed on the edge covering insulating layer, similar to Claim 9. In addition, these claims clearly describe that, among organic layers of the organic emissive element layer having multilayered organic layers, the organic layer closest to the lower individual electrode is common to all pixels and this organic layer covers the lower individual electrode, edge covering insulating layer, and mask support layer. None of the above-cited references teach or suggest these elements. As such, independent Claims 13 and 14 are allowable.

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In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is cordially requested to telephone the undersigned.

In the event the Commissioner of Patents and Trademarks deems additional fees to be due in connection with this application, Applicant's attorney hereby authorize that such fee be charged to Deposit Account No. 06-1130.

Respectfully submitted,

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